

- c. preparing a first blood cell mixture in accordance with the following steps:
    - i. preparing approximately one (1) volume of Tris-buffer;
    - ii. adding approximately a half ( $\frac{1}{2}$ ) volume of Tris-buffer saturated phenol, prepared by mixing re-distilled phenol with Tris-buffer, to the approximately one (1) volume of Tris-buffer to produce a buffer diluted phenol; and
    - iii. adding approximately two (2) volumes of the blood cells to the buffer diluted phenol;
  - d. centrifuging the first blood cell mixture to form a first liquid phase and first blood cell debris;
  - e. preparing a second blood cell mixture by mixing the centrifuged first blood cell mixture and first blood cell debris with approximately a half ( $\frac{1}{2}$ ) volume of chloroform and approximately a half ( $\frac{1}{2}$ ) volume of Tris-buffer saturated phenol, prepared by mixing re-distilled phenol with Tris-buffer;
  - f. centrifuging the second blood cell mixture to form a second liquid phase and second blood cell debris;
  - g. cooling the second liquid phase and second blood cell debris thereby causing the structural components of the DNA complex within the second liquid phase to aggregate;
  - h. placing an acid alcohol sample consisting of approximately twelve and a half ( $12\frac{1}{2}$ ) volumes of freshly made 20% acid alcohol on a slide; and
  - i. adding a blood cell sample consisting of approximately one fifth (1/5) volume of the cooled second liquid phase onto the center of the top surface of the acid alcohol sample and allowing both samples to dry at room temperature without any disturbance, whereby an aggregate of the DNA complex deposits a strand pattern on the slide.
2. A method of processing human blood samples to form a DNA complex strand pattern, comprising the steps of:

- a. mixing a sample of blood containing plasma and blood cells with an anticoagulant to form an anti-coagulated blood mixture;
- b. centrifuging the anti-coagulated blood mixture in order to separate the plasma from the blood cells;
- c. preparing a first blood cell mixture in accordance with the following steps:
  - i. preparing approximately 5 ml of Tris-buffer;
  - ii. adding approximately 2.5 ml of Tris-buffer saturated phenol, prepared by mixing re-distilled phenol with Tris-buffer, to the approximately 5.0 ml of Tris-buffer to produce a buffer diluted phenol; and
  - iii. adding approximately 10 ml of the blood cells to the buffer diluted phenol;
- d. centrifuging the first blood cell mixture to form a first liquid phase and first blood cell debris;
- e. preparing a second blood cell mixture by mixing the centrifuged first blood cell mixture and first blood cell debris with approximately 2.5 ml of chloroform and approximately 2.5 ml of Tris-buffer saturated phenol, prepared by mixing re-distilled phenol with Tris-buffer;
- f. centrifuging the second blood cell mixture to form a second liquid phase and second blood cell debris;
- g. cooling the second liquid phase and second blood cell debris thereby causing the structural components of the DNA complex within the second liquid phase to aggregate;
- h. placing an acid alcohol sample consisting of approximately 25 ml of freshly made 20% acid alcohol on a slide;
- i. adding a blood cell sample consisting of approximately 1.0 ml of the cooled second liquid phase onto the center of the top surface of the acid alcohol sample and allowing both samples to dry at room temperature without any disturbance, whereby an aggregate of the DNA complex deposits a strand pattern on the slide.